

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/526,060  
Source: PUT/10  
Date Processed by STIC: 3/9/05

# ***ENTERED***

# CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/526,060

CRF Edit Date: 3/11/05  
Edited by: h

\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

\_\_\_ Deleted: \_\_\_ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

✓ Other: Sequence 7 - moved C2137 response up one line

\_\_\_\_\_

\_\_\_\_\_



PCT10

## RAW SEQUENCE LISTING

DATE: 03/11/2005

PATENT APPLICATION: US/10/526,060

TIME: 14:45:11

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03112005\J526060.raw

```

4 <110> APPLICANT: ASHMAN, Claire
5     ELLIS, Jonathan Henry
7 <120> TITLE OF INVENTION: IMMUNOGENIC COMPOSITION COMPRISING AN
8     IL-13 ELEMENT AND T CELL EPITOPES, AND ITS THERAPEUTIC USE
11 <130> FILE REFERENCE: PG4938
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/526,060
C--> 14 <141> CURRENT FILING DATE: 2005-02-28
16 <150> PRIOR APPLICATION NUMBER: PCT/GB03/03703
17 <151> PRIOR FILING DATE: 2003-08-28
19 <150> PRIOR APPLICATION NUMBER: GB 0304672.9
20 <151> PRIOR FILING DATE: 2003-02-28
22 <150> PRIOR APPLICATION NUMBER: GB 0220212.5
23 <151> PRIOR FILING DATE: 2002-08-30
25 <160> NUMBER OF SEQ ID NOS: 68
27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 112
31 <212> TYPE: PRT
32 <213> ORGANISM: Homo sapien IL-13
34 <400> SEQUENCE: 1
35 Gly Pro Val Pro Pro Ser Thr Ala Leu Arg Glu Leu Ile Glu Glu Leu
36 1          5          10          15
37 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
38 20          25          30
39 Val Trp Ser Ile Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala Leu Glu
40 35          40          45
41 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg
42 50          55          60
43 Met Leu Ser Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser
44 65          70          75          80
45 Ser Leu His Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Lys
46 85          90          95
47 Asp Leu Leu Leu His Leu Lys Lys Leu Phe Arg Glu Gly Arg Phe Asn
48 100         105         110
51 <210> SEQ ID NO: 2
52 <211> LENGTH: 111
53 <212> TYPE: PRT
54 <213> ORGANISM: Murine IL-13
56 <400> SEQUENCE: 2
57 Gly Pro Val Pro Arg Ser Val Ser Leu Pro Leu Thr Leu Lys Glu Leu
58 1          5          10          15
59 Ile Glu Glu Leu Ser Asn Ile Thr Gln Asp Gln Thr Pro Leu Cys Asn
60 20          25          30

```

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Input Set : A:\PTO.AMC.txt

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```

61 Gly Ser Met Val Trp Ser Val Asp Leu Ala Ala Gly Gly Phe Cys Val
62          35          40          45
63 Ala Leu Asp Ser Leu Thr Asn Ile Ser Asn Cys Asn Ala Ile Tyr Arg
64          50          55          60
65 Thr Gln Arg Ile Leu His Gly Leu Cys Asn Arg Lys Ala Pro Thr Thr
66 65          70          75          80
67 Val Ser Ser Leu Pro Asp Thr Lys Ile Glu Val Ala His Phe Ile Thr
68          85          90          95
69 Lys Leu Leu Ser Tyr Thr Lys Gln Leu Phe Arg His Gly Pro Phe
70          100          105          110
73 <210> SEQ ID NO: 3
74 <211> LENGTH: 111
75 <212> TYPE: PRT
76 <213> ORGANISM: Porcine IL-13
78 <400> SEQUENCE: 3
79 Gly Pro Val Pro Pro His Ser Thr Ala Leu Lys Glu Leu Ile Glu Glu
80 1          5          10          15
81 Leu Val Asn Ile Thr Gln Asn Gln Lys Thr Pro Leu Cys Asn Gly Ser
82          20          25          30
83 Met Val Trp Ser Val Asn Leu Thr Thr Ser Met Gln Tyr Cys Ala Ala
84          35          40          45
85 Leu Glu Ser Leu Ile Asn Ile Ser Asp Cys Ser Ala Ile Gln Lys Thr
86          50          55          60
87 Gln Arg Met Leu Ser Ala Leu Cys Ser His Lys Pro Pro Ser Glu Gln
88 65          70          75          80
89 Val Pro Gly Lys His Ile Arg Asp Thr Lys Ile Glu Val Ala Gln Phe
90          85          90          95
91 Val Lys Asp Leu Leu Lys His Leu Arg Met Ile Phe Arg His Gly
92          100          105          110
95 <210> SEQ ID NO: 4
96 <211> LENGTH: 112
97 <212> TYPE: PRT
98 <213> ORGANISM: Bovine IL-13
100 <400> SEQUENCE: 4
101 Ser Pro Val Pro Ser Ala Thr Ala Leu Lys Glu Leu Ile Glu Glu Leu
102 1          5          10          15
103 Val Asn Ile Thr Gln Asn Gln Lys Val Pro Leu Cys Asn Gly Ser Met
104          20          25          30
105 Val Trp Ser Leu Asn Leu Thr Ser Ser Met Tyr Cys Ala Ala Leu Asp
106          35          40          45
107 Ser Leu Ile Ser Ile Ser Asn Cys Ser Val Ile Gln Arg Thr Lys Lys
108          50          55          60
109 Met Leu Asn Ala Leu Cys Pro His Lys Pro Ser Ala Lys Gln Val Ser
110 65          70          75          80
111 Ser Glu Tyr Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Leu Lys
112          85          90          95
113 Asp Leu Leu Arg His Ser Arg Ile Val Phe Arg Asn Glu Arg Phe Asn
114          100          105          110
117 <210> SEQ ID NO: 5

```

## RAW SEQUENCE LISTING

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Input Set : A:\PTO.AMC.txt

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118 &lt;211&gt; LENGTH: 111

119 &lt;212&gt; TYPE: PRT

120 &lt;213&gt; ORGANISM: Canine IL-13

122 &lt;400&gt; SEQUENCE: 5

```

123 Ser Pro Val Thr Pro Ser Pro Thr Leu Lys Glu Leu Ile Glu Glu Leu
124 1      5      10      15
125 Val Asn Ile Thr Gln Asn Gln Ala Ser Leu Cys Asn Gly Ser Met Val
126      20      25      30
127 Trp Ser Val Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala Leu Glu Ser
128      35      40      45
129 Leu Ile Asn Val Ser Asp Cys Ser Ala Ile Gln Arg Thr Gln Arg Met
130      50      55      60
131 Leu Lys Ala Leu Cys Ser Gln Lys Pro Ala Ala Gly Gln Ile Ser Ser
132 65      70      75      80
133 Glu Arg Ser Arg Asp Thr Lys Ile Glu Val Ile Gln Leu Val Lys Asn
134      85      90      95
135 Leu Leu Thr Tyr Val Arg Gly Val Tyr Arg His Gly Asn Phe Arg
136      100     105     110

```

139 &lt;210&gt; SEQ ID NO: 6

140 &lt;211&gt; LENGTH: 111

141 &lt;212&gt; TYPE: PRT

142 &lt;213&gt; ORGANISM: Rat IL-13

W--&gt; 143 &lt;400&gt; SEQUENCE: 6

```

144 Gly Pro Val Arg Arg Ser Thr Ser Pro Pro Val Ala Leu Arg Glu Leu
145 1      5      10      15
146 Ile Glu Glu Leu Ser Asn Ile Thr Gln Asp Gln Lys Thr Ser Leu Cys
147      20      25      30
148 Asn Ser Ser Met Val Trp Ser Val Asp Leu Thr Ala Gly Gly Phe Cys
149      35      40      45
150 Ala Ala Leu Glu Ser Leu Thr Asn Ile Ser Ser Cys Asn Ala Ile His
151      50      55      60
152 Arg Thr Gln Arg Ile Leu Asn Gly Leu Cys Asn Gln Lys Ala Ser Asp
153 65      70      75      80
154 Val Ala Ser Ser Pro Asp Thr Lys Ile Glu Val Ala Gln Phe Ile
155      85      90      95
156 Ser Lys Leu Leu Asn Tyr Ser Lys Gln Leu Phe Arg Tyr Gly His
157      100     105     110

```

160 &lt;210&gt; SEQ ID NO: 7

161 &lt;211&gt; LENGTH: 111

162 &lt;212&gt; TYPE: PRT

163 &lt;213&gt; ORGANISM: Cynomolgus il-13

165 &lt;400&gt; SEQUENCE: 7

```

166 Ser Pro Val Pro Pro Ser Thr Ala Leu Lys Glu Leu Ile Glu Glu Leu
167 1      5      10      15
168 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
169      20      25      30
170 Val Trp Ser Ile Asn Leu Thr Ala Gly Val Tyr Cys Ala Ala Leu Glu
171      35      40      45
172 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg

```

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DATE: 03/11/2005

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TIME: 14:45:11

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03112005\J526060.raw

```

173      50                      55                      60
174 Met Leu Asn Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser
175 65                      70                      75                      80
176 Ser Leu Arg Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Lys
177                      85                      90                      95
178 Asp Leu Leu His Leu Lys Lys Leu Phe Arg Glu Gly Gln Phe Asn
179      100                      105                      110
182 <210> SEQ ID NO: 8
183 <211> LENGTH: 112
184 <212> TYPE: PRT
185 <213> ORGANISM: Rhesus IL-13
187 <400> SEQUENCE: 8
188 Ser Pro Val Pro Arg Ser Thr Ala Leu Lys Glu Leu Ile Glu Glu Leu
189 1      5                      10                      15
190 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
191      20                      25                      30
192 Val Trp Ser Ile Asn Leu Thr Ala Gly Val Tyr Cys Ala Ala Leu Glu
193      35                      40                      45
194 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg
195      50                      55                      60
196 Met Leu Asn Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser
197 65                      70                      75                      80
198 Ser Leu Arg Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Lys
199      85                      90                      95
200 Asp Leu Leu Val His Leu Lys Lys Leu Phe Arg Glu Gly Arg Phe Asn
201      100                      105                      110
204 <210> SEQ ID NO: 9
205 <211> LENGTH: 112
206 <212> TYPE: PRT
207 <213> ORGANISM: Marmoset IL-13
209 <400> SEQUENCE: 9
210 Gly Pro Val Pro Pro Tyr Thr Ala Leu Lys Glu Leu Ile Glu Glu Leu
211 1      5                      10                      15
212 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
213      20                      25                      30
214 Val Trp Ser Ile Asn Met Thr Ala Gly Val Tyr Cys Ala Ala Leu Glu
215      35                      40                      45
216 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg
217      50                      55                      60
218 Met Leu Ser Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser
219 65                      70                      75                      80
220 Ser Leu Leu Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Lys
221      85                      90                      95
222 Asp Leu Leu Arg His Leu Arg Lys Leu Phe His Gln Gly Thr Phe Asn
223      100                      105                      110
226 <210> SEQ ID NO: 10
227 <211> LENGTH: 112
228 <212> TYPE: PRT
229 <213> ORGANISM: Artificial Sequence

```

## RAW SEQUENCE LISTING

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PATENT APPLICATION: US/10/526,060

TIME: 14:45:11

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03112005\J526060.raw

231 &lt;220&gt; FEATURE:

232 &lt;223&gt; OTHER INFORMATION: Chimaeric Homo Sapien IL-13

234 &lt;400&gt; SEQUENCE: 10

```

235 Gly Pro Val Pro Pro Ser Ser Ala Leu Lys Glu Leu Ile Glu Glu Leu
236 1          5          10          15
237 Ala Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
238          20          25          30
239 Val Trp Ser Ile Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala Leu Asp
240          35          40          45
241 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Arg Thr Gln Arg
242          50          55          60
243 Ile Leu Ser Ala Phe Cys Pro His Lys Val Ser Ala Gly Gln Phe Ser
244 65          70          75          80
245 Ser Leu Arg Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe Val Thr
246          85          90          95
247 Asp Leu Leu Val His Leu Lys Arg Leu Phe Arg Gln Gly Thr Phe Asn
248          100          105          110

```

251 &lt;210&gt; SEQ ID NO: 11

252 &lt;211&gt; LENGTH: 121

253 &lt;212&gt; TYPE: PRT

254 &lt;213&gt; ORGANISM: Artificial Sequence

256 &lt;220&gt; FEATURE:

257 &lt;223&gt; OTHER INFORMATION: Chimaeric Homo Sapien IL-13

259 &lt;400&gt; SEQUENCE: 11

```

260 Gly Pro Val Pro Pro Ser Thr Ala Leu Arg Glu Leu Ile Glu Glu Leu
261 1          5          10          15
262 Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly Ser Met
263          20          25          30
264 Val Trp Ser Ile Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala Leu Glu
265          35          40          45
266 Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr Gln Arg
267          50          55          60
268 Met Leu Gly Gly Phe Cys Pro His Lys Phe Asn Asn Phe Thr Val Ser
269 65          70          75          80
270 Phe Trp Leu Arg Val Pro Lys Val Ser Ala Ser His Leu Glu Asp Thr
271          85          90          95
272 Lys Ile Glu Val Ala Gln Phe Val Lys Asp Leu Leu Leu His Leu Lys
273          100          105          110
274 Lys Leu Phe Arg Glu Gly Arg Phe Asn
275          115          120

```

278 &lt;210&gt; SEQ ID NO: 12

279 &lt;211&gt; LENGTH: 133

280 &lt;212&gt; TYPE: PRT

281 &lt;213&gt; ORGANISM: Artificial Sequence

283 &lt;220&gt; FEATURE:

284 &lt;223&gt; OTHER INFORMATION: Chimaeric Homo Sapien IL-13

286 &lt;400&gt; SEQUENCE: 12

```

287 Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser
288 1          5          10          15

```

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/526,060

DATE: 03/11/2005

TIME: 14:45:12

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03112005\J526060.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:143 M:283 W: Missing Blank Line separator, <400> field identifier